Meeting Notes

Appropriate Beneficial Uses for Water Bodies Receiving NPDES Discharges (MUN)

February 22, 2012

1:00-4:00 PM

Location: Central Valley Regional Water Quality Control Board Office, 11020 Sun Center Drive, Suite 200 Rancho Cordova, CA 95670: Delta Conference Room
Conference Line: (916) 227-1132
Contact Person: Anne Littlejohn (916) 464-4840

Attendees:

Central Valley Water Board
Anne Littlejohn, Betty Yee, Calvin Yang, Greg Cash, Heidi Bauer, Katie Bowman, Jeanne Chilcott, Susan Fregien

Central Valley Clean Water Association
Debbie Webster

City of Biggs
Steve Speights

City of Colusa
Dale Klever, Jesse Cain

Northern California Water Association - Sacramento Valley Coalition
Bruce Houdesheldt

United States Environmental Protection Agency
Matthew Mitchell

Meeting Objectives

- *Confirm Monitoring Questions*
- *Confirm the site selection list and identify which sites are accessible or need further reconnaissance.*
- *Confirm the analyte list and identify which ones are most critical for this project.*
- *Confirm the preferred and minimum frequencies for each analyte category and site. Identify the total timeframe for monitoring.*
- *Identify all resources available for required field work. Decide who is responsible for the first three months of monitoring.*
- *Identify available funding for laboratory analyses. Recommend adjustments to reflect available funding.*
- *Identify best resource for handling the data management and reporting of the monitoring results.*
- *Review decisions made and identify action items and next steps.*

Meeting Summary

- Brief Overview of current Draft Monitoring Plan
    - Format followed Surface Water Ambient Monitoring (SWAMP) guideline
        - There was a question regarding the QA/QC requirements of the NPDES program versus SWAMP. The consensus was that they should be compatible but follow-up will be needed.
            - *<u>Action item</u>: Calvin Yang will review QA/QC requirements of NPDES with SWAMP to confirm compatibility.*
    - Initial feedback to the Draft Monitoring Plan had been provided as follows:
        - Trigger Points
            - If the field surveys and background information show that constructed water bodies are applicants for the Drinking Water Policy exception, do we need to continue to monitor?
            - Does monitoring downstream, where additional influences must be taken into consideration, make sense if the initial receiving water monitoring concentrations do not show any exceedances?
        - Policy
            - Definition of "sustained" needed for the Drinking Water Policy exception
            - Are dilution credits possible for any of the POTW facilities?
            - How will POTW issues be interfaced into the broader Ag. Drain issues for the CV-SALTS Archetypes?
            - More information is needed on how the anti-degradation policy will apply and how the "baseline" levels are defined.
        - Frequencies
            - Can the schedule for Priority Pollutant monitoring be moved in the NPDES permits for the POTWs?
            - Why 18 months of monitoring instead of 12?
            - Is monthly monitoring really necessary?
        - Analytes
            - Can THM monitoring be eliminated for plants with UV treatment (Colusa, Live Oak)?
            - How is flow going to be measured? What type of instruments will be available and will they be adequate to measure the flow?

- Work Item #1 Monitoring Questions
    - Are we asking the all of the appropriate questions? Feedback included the following:
        - A change in order was suggested to make the questions under the Drinking Water Policy listed first because they should be the primary focus.
        - Anti-degradation questions may be premature for this early part of the monitoring.
        - We still *might* need to answer all the questions down the line if water quality data is needed for setting site specific water quality objective
        - Establishing a decision tree to map out the possible routes and alternatives would help with the prioritization of questions. Some decision points may include existing use; water of the nation; whether to refine or remove a use, develop site specific objectives or specify a compliance point.
            - *<u>Decision</u>: The questions are adequate but they may not all need to be answered depending on the initial field surveys and monitoring results.*
            - *<u>A letter is needed requesting clarification on Department of Health's position on use of agricultural return flows as a potential drinking water source</u>*.
            - *<u>Action items</u>:*

- *Calvin Yang will reorganize the order of the questions and review language explaining development of monitoring program in response to questions.*
- *Staff will create a draft "decision tree" for review.*
- *Staff will work with POTWs and appropriate water agencies to gather information on water bodies in question (e.g. construction records, use, etc.)*
- *Staff will finalize water rights compilations for the areas in question.*

- Work Item #2 Site Selection
  - A brief overview of the potential sites using the large maps created for the meeting. Monitoring sites for the Irrigated Lands Regulatory Program were also pointed out. Feedback included the following:
    - Some of the sites may be too far downstream from the POTW with too many other influences (e.g., Butte Creek sites for the City of Biggs). A better site for Biggs may be downstream of Hamilton Slough.
    - Should we be including sites from any named segment downstream of the POTW effluent outfall to the first non-MUN designated water body (e.g., each lateral drain from the City of Live Oak)?
    - Should we be going further upstream to characterize the entire water body for segments like Powell Slough (City of Colusa)?
    - How do we address the fact that a segment of Powell Slough is now directly connected to the Colusa Basin Drain and allow for a recycling loop?
    - Are we looking at water body segments or entire water bodies? Can a single site represent a full segment or do we look for "best" and "worst" cases?
    - Will the sites answer the question of MUN de-designation? Do they help with the broader issue of the appropriate beneficial uses of agricultural dominated water bodies or background for site specific objectives?
    - Do the monitoring sites adequately represent the water body? What kind of irrigation and recycling is going on in the area? Are there mixing zones?
      - *<u>Decision</u>: Final site selection will depend on initial field reconnaissance and further research of previous data.*
      - *<u>Action items</u>:*
        - *Anne Littlejohn will continue to schedule with each individual POTW and local water agencies time for staff to jointly conduct reconnaissance and initial field surveys.*
        - *Staff from the Central Valley Water Board will also meet with local irrigation/reclamation districts to gather more information on the hydrology and water practices of each area.*

- Work Item #3 Analyte Selection
  - Calvin Yang provided an overview of the potential analytes to be included in the monitoring program. Feedback included the following:
    - Can we eliminate some of the monitoring if the POTWs are already required to monitor for them in their permits (e.g. City of Colusa monitors many of the key analytes monthly in their effluent)
    - Can some of the CTR monitoring be eliminated if they have already been covered with previous studies (e.g. City of Colusa has special study data)
    - Does the Sacramento River Watershed Program have any information available on these water bodies?
    - Dioxin should be eliminated because it should not be a concern for these water bodies and is very expensive.

        - Can monitoring in the Colusa Basin Drain and Sutter Bypass be limited to analytes that reflect protection of the designated beneficial uses (e.g. MUN is NOT designated)?
            - *<u>Decision</u>: No decision was made on a final list of analytes, but research on previous work may eliminate the need to monitor for all of the identified analytes.*
            - *<u>Action items</u>:*
                - *City of Colusa and other POTWs will send any monitoring data they have to Anne Littlejohn for review.*
                - *Further fine-tuning of analyte selection will be made by Central Valley Water Board staff for each POTW area after an additional review of existing water quality monitoring data and recent study data.*

- Work Item #4 Frequency Selection
    - The discussion on the selected frequencies focused primarily on the definition of "seasonal" monitoring. Feedback included the following:
        - Rice irrigation may include the following seasons:
            - Flooding of fields – late spring (April)
            - Dumping of water – late summer (August/September)
            - Duck Club flooding – fall (October)
            - Dry period – possibly short time in late fall/early winter (November/December)
        - For other type of crops, two main seasons are considered:
            - Storm season – mid November to February depending on the year
            - Irrigation season – late spring/early summer
        - Cropping patterns should be reviewed. ILRP has information on which analytes should be monitored for at which times of the year (e.g. pesticide use data).
        - 18 month monitoring period gives staff a chance to "catch" any potential seasonal changes that they might have missed during the first year of monitoring.
            - *<u>Decision</u>: No final decision was made on the sampling frequencies, but further research on previous seasonal information will help to fine-tune the sampling frequencies for seasonal sampling. A three-month initial monitoring period will also help to fine-tune how often additional sampling needs to occur.*
            - *<u>Action items:</u>*
                - *Water Board staff will further research cropping patterns, CDEC data for any available/representative stations, and other previously collected data (e.g. from local water agencies and ILRP data) to establish a better understanding of key "hydrologic seasons" in the POTW area.*

- Work Item #5 Field Work and Monitoring
    - Resources available from the Central Valley Water Board for field work were discussed. By leveraging existing SWAMP student resources, one staff person and one student may be available for field work on a semi-weekly basis. Time would be better leveraged if the team could up some samples from POTWs rather than doing all the collection.
    - Colusa has personnel out every week observing and collection samples. Currently using Sierra Foothill Laboratory for chemical analysis and an in-house laboratory for general analyses.
    - Biggs has the potential to have an operator available.
    - More information will be needed from the POTWs regarding:
        - Can the personnel responsible for the existing NPDES monitoring at each facility be available to take photos, field measurements, flow and/or water samples?
        - If so, when are they available?
        - Can they meet Central Valley Water Board staff with samples?
        - Do they have a laboratory available? If so, for which analyses?

        - What type of equipment do they currently have and what do they lack?
            - <u>Decision</u>: *Central Valley Water Board will be available for monitoring efforts but need to leverage other resources to meet anticipated program.*
            - <u>Action item</u>: *Anne Littlejohn will send the POTWs a survey to gather potential partnership information. Further resource decisions will be made after the more information is collected.*

- Work Item #6 Analytical Costs
    - The following information was provided regarding available funding for the project:
        - CV Water Board: $20K available for monitoring between April and June 2012
        - CV Water Board: $30 K available for monitoring for fiscal year July 2012 – June 2013
        - CV-SALTS may have available funding, but the contract process would take at least 3 months
        - If the Board approved moving any of the Priority Pollutant NPDES monitoring for the POTWs, this could supplement some of the proposed monitoring.
            - <u>Decision</u>: *Central Valley Water Board funding will cover the initial 3 month monitoring period up to $20K. No other funding sources are confirmed at this time.*
            - <u>Action item</u>: *Central Valley Water Board staff will update cost tables once analytes, sites and frequencies are fine-tuned.*

- Work Item #7 Data Management
    - Central Valley Water Board resources are tight for data management. Time needed to manage data and enter it into CEDEN will require at least one additional student resource which at this time is not available.
        - <u>Decision</u>: *Central Valley Water Board will retain the responsibility of Data Management, but the time schedule for making the data available in a statewide system may be greatly extended (1.5 – 2 years) beyond the normal data turnaround time.*

- Review and Next Steps
    - Priority Next Steps include
        - Re-drafting of Monitoring Plan based on meeting feedback and follow-up to action items in time for Review by CV-SALTS Technical Committee on March 8th.
            - Summarize questions for Committee recommendation
            - Lead to recommendation to CV-SALTS Executive Committee for funding
        - Meet with Irrigation and Reclamation Districts to gather information on water bodies and conduct reconnaissance on potential sites. (Coordinate with POTWs.)
        - Initial monitoring end of March/early April.

- Next Meeting
    - Topics to include: update on results of field surveys and reconnaissance; review of 1993 Ag Dominated Water Body Identification study and 1995 Ag Water Task Force report; and determining schedule to review identified policy issues.
    - Meeting date will be coordinated with relevant discussions occurring at the CV-SALTS Executive Committee Policy meeting. Notice will be provided to participant once the schedule is available.